

ORIGINAL

DOCKET FILE COPY ORIGINAL

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

AUG 22 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Advanced Television Systems and Their) MM Docket No. 87-268
Impact Upon the Existing Television)
Broadcast Service)

SUPPLEMENT TO PETITION FOR RECONSIDERATION

Journal Broadcast Group, Inc. (Journal), by its attorneys, hereby supplements its June 13, 1997, Petition for Reconsideration of the Sixth Report and Order in this proceeding, and requests that the DTV Table of Allotments be modified to assign DTV channel 12, or in the alternative channel 9, to Station KTNV(TV), Las Vegas, Nevada.

Journal is the licensee of Station KTNV(TV), which serves Las Vegas on NTSC channel 13. The Sixth Report and Order allotted DTV channel 17 to KTNV. Journal's Petition showed that, contrary to principles of administrative law that require an agency to explain the basis for its action, the Sixth Report and Order failed to provide its methodology or its rationale for allotting channel 17. Journal also showed that this higher, UHF allotment was particularly unjustified because it would impose significant costs on Journal (but not on other Las Vegas stations) and create serious environmental issues at Journal's transmitter site, all of which could be avoided by allotting a VHF channel to this station. Journal thus asked that the Table of Allotments be modified to assign it VHF channel 9.

10-10-97
10-10-97
CA 10

In a subsequent Order, the Commission invited "parties requesting reconsideration of individual allotments included in the DTV Table of Allotments to submit supplemental information relating to their petitions."¹ This Supplement is filed pursuant to that Order.

Attached to this Supplement is an Engineering Statement prepared by Carl E. Smith Consulting Engineers. The Engineering Statement confirms that DTV channel 9 can be allotted to KTNV consistent with the DTV spacing rules and other Commission requirements. The Statement also demonstrates that allotment of DTV channel 12 will be even more beneficial in achieving the Commission's goals for the new DTV service. Based on the calculations and analysis set forth in the Engineering Statement, Journal requests that the DTV Table of Allotments be modified to assign channel 12 to KTNV. Use of channel 12 will eliminate the serious problems identified in Journal's Petition, can be accomplished consistent with the DTV rules, will actually provide more interference-free coverage than the original channel 17 allotment, and will also resolve the concerns raised by the two parties which filed comments on Journal's Petition. If, however, the Commission determines that channel 12 cannot be allotted, Journal requests the allotment of channel 9 in the alternative.

The Engineering Statement demonstrates that allotment of DTV channel 12 will achieve the following benefits:

¹Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Order, released July 2, 1997, DA 97-1377.

-- Journal's Petition showed that the extra cost of purchasing a UHF transmitter and other equipment for KTNV could exceed \$1,000,000. These burdens are particularly inequitable given that most of KTNV's competitors will not need to go to the same expense. These costs would be avoided by a VHF allotment.

-- Constructing a DTV facility on channel 17 would also create serious potential environmental problems. UHF operation, which would involve much higher ERP, would exacerbate the existing RF radiation situation on the Black Mountain antenna sites used by KTNV and many other stations. UHF operation would also require a water-cooled transmitter, which would sharply increase costs and may not be feasible at all given the stringent regulation of water usage in the desert area surrounding Las Vegas. VHF operation would solve these problems.

-- DTV channel 12 (or in the alternative channel 9) can be allotted to KTNV without disrupting any of the other DTV allotments made in the Sixth Report and Order.

-- Allotting DTV channel 12 (or channel 9) would result in a net gain in interference-free television service, and a net reduction in interference caused to other stations.

-- Allotting DTV channel 12 (or channel 9) would actually result in more interference-free service than would the original allotment of channel 17, further increasing the public interest benefits of a VHF assignment.

Given these clear benefits of a VHF allotment over a UHF allotment as detailed in Journal's Petition and the attached Engineering Statement, there can be no rational basis to preserve channel 17 as the DTV allotment for KTNV.

Of the two VHF options, channel 12 is preferable to Journal, because it would not require a precise frequency offset to prevent interference to two stations which are currently operating on adjacent NTSC channels. The only adjacent NTSC channel would be KTNV's own current operation. Journal is thus in the position to address and resolve any interference caused to its own operation.

Two parties have filed pleadings in the reconsideration phase of this docket concerning KTNV's request. Both parties' concerns would be fully resolved by modifying the Table of Allotments to specify DTV channel 12 for KTNV.

Innovative Technologies, Inc., licensee of an LPTV station operating on channel 17 in Las Vegas, filed its own Petition for Reconsideration on June 13, 1997, which opposed the Commission's allotment of channel 17 to KTNV. Innovative argued that KTNV should be allotted a different DTV channel in order to preserve Innovative's current LPTV operation. On July 31, 1997, Innovative filed a reply which supported Journal's request for DTV channel 9. Allotment of channel 12 would have the same benefit of preventing the disruption of LPTV channel 17. Where, as here, the Commission can accommodate both a full power station and a LPTV station by assigning the full power station a VHF DTV channel, the public interest strongly weighs in favor of the VHF allotment.

Clark County School District, licensee of Station KLVX(TV), operating on NTSC channel 10 in Las Vegas, opposed Journal's petition seeking DTV channel 9, because Journal did not expressly commit to cooperate in resolving potential interference caused by adjacent DTV/NTSC operation. Journal hereby expressly makes that commitment to the School District should it be allotted channel 9. Moreover, the attached Engineering Statement shows that even channel 9 can be allotted to KTNV consistent with the Commission's DTV rules. In any event, the School District's interference concerns would be mooted should the Commission grant Journal's request to be allotted DTV channel 12 rather than channel 9.

Journal's Petition for Reconsideration noted that Station KUSG, an unbuilt station in St. George, Utah, had been assigned DTV channel 9. Journal stated that it would identify an alternative channel for KUSG when OST Bulletin No. 69 was released. The Engineering Exhibit shows, however, that DTV channel 12 can be allotted to KTNV without the need to find an alternative allotment for KUSG. This eliminates any issue regarding KUSG. In addition, as the Statement shows, even a channel 9 DTV allotment for KTNV does not create interference to any future potential DTV operation by KUSG which outweighs the interference which would be eliminated by avoiding use of DTV channel 17 for KTNV. In any event, DTV operation by KUSG is unlikely given that it remains an unbuilt station despite holding a construction permit for more than nine years. Moreover, KUSG did not oppose Journal's Petition for Reconsideration.

For the above reasons, the Commission's Sixth Report and Order should be modified to specify a DTV allotment for KTNV, Las Vegas, Nevada, of channel 12.

Respectfully submitted,

JOURNAL BROADCAST GROUP, INC.

By: John T. Scott, III
John T. Scott, III
Crowell & Moring LLP
1001 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
(202) 624-2500

Its Attorneys

Dated: August 22, 1997

CERTIFICATE OF SERVICE

I hereby certify that I have this 22nd day of August, 1997, caused copies of the foregoing "Supplement to Petition for Reconsideration" to be sent by first-class mail, postage prepaid, to the following persons:

John B. Kenkel
Kenkel & Associates
1901 L Street, N.W., Suite 290
Washington, D.C. 20036
(Counsel for Innovative Technologies, Inc.)

Carl R. Ramey
Todd M. Stansbury
Wiley Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006
(Counsel for Clark County School District)



John T. Scott, III

ENGINEERING STATEMENT IN
SUPPORT OF SUPPLEMENT TO
PETITION FOR RECONSIDERATION

MM DOCKET 87-268

Journal Broadcast Group, Inc.
Las Vegas, NV

August 21, 1997

Prepared for: Mr. Randy Price
Journal Broadcast Group, Inc.
720 East Capitol Drive
Milwaukee, WI 53201

CARL E. SMITH CONSULTING ENGINEERS

CONTENTS

Title Page

Contents

Engineering Affidavit

Roy P. Stype, III

Engineering Statement

- Table 1.0 - KTNV Authorized
Channel 17 DTV Facilities
- Table 1.1 - Reduction in Predicted
Interference to Other
Stations From Deletion of
DTV Channel 17 in Las Vegas
- Table 2.0 - KTNV Proposed Channel
12 DTV Facilities
- Table 2.1 - Comparison of Predicted
Service By DTV Operation on
Channel 12 and Channel 17
- Table 2.2 - Increase in Predicted Interference
to Other Stations From Addition
of DTV Channel 12 in Las Vegas
- Table 2.3 - Total Service Gains Resulting
From Substitution of DTV
Channel 12 for DTV Channel
17 in Las Vegas
- Table 3.0 - KTNV Proposed Channel
9 DTV Facilities
- Table 3.1 - Comparison of Predicted
Service by DTV Operation on
Channel 9 and Channel 17
- Table 3.2 - Increase in Predicted
Interference to Other
Stations From Addition of
DTV Channel 9 in Las Vegas

CONTENTS

(cont'd)

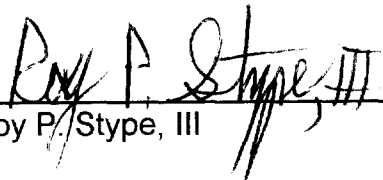
- Table 3.3 - Total Service Gains Resulting
from Substitution of DTV Channel
9 for DTV Channel 17 in Las Vegas
- Appendix A - OET Bulletin 69 Calculations
Authorized KTNV Channel 17
DTV Facilities
- Appendix B - OET Bulletin 69 Calculations
Proposed KTNV Channel 12
DTV Facilities
- Appendix C - OET Bulletin 69 Calculations
Proposed KTNV Channel 9
DTV Facilities

ENGINEERING AFFIDAVIT

State of Ohio)
) ss:
County of Summit)

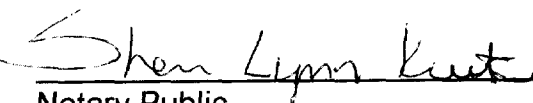
Roy P. Stype, III, being duly sworn, deposes and states that he is a graduate Electrical Engineer, a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by the Journal Broadcast Group, Inc., to prepare the attached "Engineering Statement In Support Of Supplement To Petition For Reconsideration - MM Docket 87-268."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.



Roy P. Stype, III

Subscribed and sworn to before me on **June 12, 1997**.



Notary Public

SHERI LYNN KURTZ, Notary Public
Residence - Summit County
State Wide Jurisdiction, Ohio
My Commission Expires June 14, 2000

/SEAL/

ENGINEERING STATEMENT

This engineering statement is prepared on behalf of the Journal Broadcast Group, Inc., licensee of KTNV(TV) - Las Vegas, Nevada. It supports a supplement to a petition for reconsideration of the Sixth Report and Order in MM Docket 87-268. KTNV presently operates as an analog TV station on Channel 13 with an effective radiated power of 316 kilowatts at 610 meters above average terrain. The above referenced Sixth Report and Order allotted Channel 17 to Las Vegas for DTV use, paired with Channel 13 for use by KTNV. In order to replicate KTNV's present analog service area, the DTV allotment on Channel 17 was assigned a maximum effective radiated power of 565.2 kilowatts at 610 meters above average terrain from the present KTNV transmitter site.

On June 13, 1997, KTNV filed a timely petition for reconsideration of this Sixth Report and Order as it pertains to the allotment of Channel 17 to Las Vegas for DTV use by KTNV. This petition noted several serious environmental problems associated with high power DTV operation on Channel 17 from the present KTNV transmitter site, which is located in the Black Mountain antenna farm. It also suggested that these problems could be resolved by allotting Channel 9 to Las Vegas for DTV use by KTNV, rather than Channel 17, and allotting Channel 22, or another of many available UHF channels, to Saint George, Utah, for use by KUSG, rather than Channel 9.

At the time that this petition for reconsideration was originally filed, the FCC had not yet released OET Bulletin No. 69, which specifies the methodology which is to be utilized to calculate interference between TV stations for the purposes of Section 73.623(c) of the FCC Rules. This is also the same methodology which was employed by the FCC in making the interference calculations associated with the development of

the initial DTV Table of Allotments contained in this Sixth Report and Order. Simultaneously with the release of this document, the FCC also issued an Order providing an additional period of time, until August 22, 1997, for parties, such as KTNV, who filed petitions for reconsideration of their DTV allotments, to file supplemental supporting data based upon the methodology outlined in this bulletin. This engineering statement contains such supplemental data in further support of KTNV's petition for reconsideration.

Employing the methodology outlined in this OET bulletin, it appears that Channel 9 can be allotted to Las Vegas for DTV use by KTNV, rather than Channel 17, without having to substitute another channel in lieu of Channel 9 for DTV use in Saint George, Utah, as originally proposed. Furthermore, as discussed in detail below, it appears that an even more desirable option would be to allot Channel 12 to Las Vegas for DTV use by KTNV, rather than Channel 17. Channel 12 can be allotted to Las Vegas for DTV use by KTNV without having to disrupt any other DTV allotments and, unlike Channel 9, will not require the utilization of a precise frequency offset to insure that interference is not caused to a nearby analog TV station operating on a lower first adjacent channel.

All interference studies outlined in this engineering statement were conducted utilizing the computer program "HDTV", developed by the Institute For Telecommunications Sciences ("ITS"), a division of the National Telecommunications and Information Administration ("NTIA") of the U. S. Department of Commerce. This computer program implements the calculation methodology outlined in OET Bulletin No. 69 using the Longley-Rice propagation model developed by ITS and allows the user to select various study configurations and lists of protected and interfering stations

from both the FCC analog and DTV engineering databases or from a user created library of analog and DTV stations.

Initially, interference studies were conducted for the authorized KTNV DTV facilities on Channel 17. The results of these studies are contained in Appendix A of this engineering statement. These studies evaluated the noise limited interference free service area for DTV operation by KTNV on Channel 17 utilizing the allotment parameters outlined in Table 1.0. They also evaluated the predicted interference to other stations, both analog and DTV, which would result from DTV operation by KTNV on Channel 17, as well as the service gains which would be realized by these other stations if the DTV allotment on Channel 17 in Las Vegas is deleted. This data is summarized in Table 1.1, which shows that the deletion of the DTV allotment on Channel 17 in Las Vegas would yield a total gain in interference free service by three stations to 600 square kilometers containing a population of 12, 000.

Utilizing the procedures outlined in Appendix B of the Sixth Report and Order in MM Docket 87-268, calculations were then conducted to determine the required operating facilities for DTV operation by KTNV on Channel 12 to replicate the station's existing analog service area on Channel 13. The required facilities, which utilize a maximum effective radiated power of 25.3 kilowatts, are tabulated in Table 2.0. Interference studies were then conducted for these proposed DTV facilities on Channel 12. The results of these studies are contained in Appendix B of this engineering statement. These studies evaluated the noise limited interference free service area for DTV operation by KTNV on Channel 12 utilizing the allotment parameters outlined in Table 2.0. They also evaluated the predicted interference to other stations, both analog and DTV, which would result from DTV operation by KTNV on Channel 12, as well as the

service losses which would be realized by these other stations if Channel 12 is allotted to Las Vegas for DTV use by KTNV. Table 2.1 presents a comparison of the noise limited interference free DTV service areas for KTNV on Channel 12 and Channel 17. As shown by this data, DTV operation by KTNV on Channel 12 would provide noise limited interference free service to an area 1500 square kilometers larger than that which would receive such service on Channel 17.

Table 2.2 presents data regarding the service losses which would be predicted for other stations, both analog and DTV, if Channel 12 is allotted to Las Vegas for DTV use by KTNV. As shown in this table, these services losses would impact three stations and encompass a total land area of 460 square kilometers and a population of 1000. It should be noted, however, that the only station to which interference is predicted in a populated area is the analog operation of KTNV on Channel 13. Additionally, as outlined in the original KTNV petition for reconsideration, KUSG is an unbuilt construction permit for which multiple extensions of time have been granted and whose most recent extension request has been pending for a significant period of time. Should the KUSG construction permit be canceled, the slight service loss to KUSG shown in this table would no longer be a factor.

Finally, Table 2.3 presents a summary of the service gains and losses associated with the substitution on Channel 12 for Channel 17 for DTV use by KTNV. As shown in this table, this channel substitution would result in a net gain of service to 1640 square kilometers containing 11, 000 persons. Furthermore, as noted above, all of the population losing service would be associated with the analog operation of KTNV on Channel 13. Additionally, the loss figures outlined in this table will be reduced if the construction permit for KUSG - Saint George, Utah, is canceled.

As shown by the above data, the substitution of Channel 12 for Channel 17 for DTV use by KTNV will result in a net gain in interference free television service and a net reduction in interference caused to other stations. This substitution can be accomplished without disrupting any of the other DTV allotments made in the Sixth Report and Order in MM Docket 87-268. The reduced operating power required for DTV operation on Channel 12 will eliminate or significantly reduce the environmental problems, as noted in the original KTNV petition for reconsideration, associated with high power UHF DTV operation from the present KTNV transmitter site. Furthermore, the use of Channel 12 for this DTV operation, rather than Channel 9, as originally proposed, will eliminate the need to maintain a precise frequency offset to prevent interference to a nearby analog TV station operating on a lower first adjacent channel.

A similar analysis to that outlined above for Channel 12 was also conducted for the Channel 9 DTV operation originally proposed in the KTNV petition for reconsideration. This further analysis was conducted to document that the proposed use of Channel 12 for DTV operation by KTNV would be superior to the use of Channel 9, while also documenting that DTV operation by KTNV on Channel 9 would still be feasible if, for some reason, it is not possible to allot Channel 12 for DTV use by KTNV. This further data also documents that it would not be necessary to substitute another Channel for the DTV allotment on Channel 9 in Saint George, Utah, in order to accommodate DTV operation by KTNV on Channel 9, as was originally proposed in the KTNV petition for reconsideration.

Table 3.0 outlines the required DTV operating facilities for KTNV on Channel 9 to replicate its existing analog service area on Channel 13. These facilities, which were calculated utilizing the methodology outlined in Appendix B of the Sixth Report and

Order in MM Docket 87-268, are identical to those required to achieve this replication on Channel 12 and employ a maximum effective radiated power of 25.3 kilowatts. Interference studies were then conducted for these proposed DTV facilities on Channel 9. The results of these studies are contained in Appendix C of this engineering statement. These studies evaluated the noise limited interference free service area for DTV operation by KTNV on Channel 9 utilizing the allotment parameters outlined in Table 3.0. They also evaluated the predicted interference to other stations, both analog and DTV, which would result from DTV operation by KTNV on Channel 9, as well as the service losses which would be realized by these other stations if Channel 9 is allotted to Las Vegas for DTV use by KTNV. Table 3.1 presents a comparison of the noise limited interference free DTV service areas for KTNV on Channel 9 and Channel 17. As shown by this data, DTV operation by KTNV on Channel 9 would provide noise limited interference free service to an area 2330 square kilometers larger, with a population 2000 greater, than that which would receive such service on Channel 17.

Table 3.2 presents data regarding the service losses which would be predicted for other stations, both analog and DTV, if Channel 9 is allotted to Las Vegas for DTV use by KTNV. As shown in this table, these services losses would impact six stations and encompass a total land area of 1090 square kilometers and a population of 1000. It should be noted, however, that, as outlined in the original KTNV petition for reconsideration, the Channel 9 DTV allotment for KUSG - Saint George, Utah, is paired with an unbuilt construction permit for which multiple extensions of time have been granted and whose most recent extension request has been pending for a significant period of time. Should the KUSG construction permit be canceled, the slight service

loss to KUSG's Channel 9 DTV allotment shown in this table would no longer be a factor.

Finally, Table 3.3 presents a summary of the service gains and losses associated with the substitution on Channel 9 for Channel 17 for DTV use by KTNV. As shown in this table, this channel substitution would result in a net gain of service to 1840 square kilometers containing 13, 000 persons.

As shown by the above data, either Channel 12 or Channel 9 can be allotted to Las Vegas for DTV use by KTNV in lieu of Channel 17. Either of these channels can be allotted without disrupting any of the other DTV allotments made in the Sixth Report and Order in MM Docket 87-268 while yielding a net gain in interference free television service and a net reduction in interference caused to other stations. Furthermore, the allotment of either of these alternate DTV channels will eliminate or significantly alleviate the environmental problems associated with high power UHF DTV operation from the present KTNV transmitter site, which is located in the Black Mountain antenna farm. Of these two alternate DTV channels, Channel 12 is preferred for two reasons. First, all of the population which would be predicted to lose service due to the allotment of Channel 12 would be associated with KTNV's present analog operation on Channel 13. Furthermore, the use of Channel 12 would not require a precise frequency offset to prevent interference to a nearby analog TV station operating on a lower first adjacent channel, which would be required on Channel 9.

TABLE 1.0

KTNV AUTHORIZED
CHANNEL 17 DTV FACILITIES
 Journal Broadcast Group, Inc.
 Las Vegas, NV

<u>Azimuth</u> <u>(Degrees)</u>	<u>Relative</u> <u>Field</u>	<u>(dBk)</u>	<u>ERP</u> <u>(kW)</u>
0	0.987	27.41	550.6
10	0.991	27.44	555.1
20	0.995	27.48	559.6
30	0.997	27.50	561.8
40	0.999	27.51	564.1
50	1.000	27.52	565.2
60	1.000	27.52	565.2
70	1.000	27.52	565.2
80	1.000	27.52	565.2
90	1.000	27.52	565.2
100	0.998	27.50	562.9
110	0.994	27.47	558.4
120	0.988	27.42	551.7
130	0.982	27.36	545.0
140	0.992	27.45	556.2
147	1.000	27.52	565.2
148	1.000	27.52	565.2
149	1.000	27.52	565.2
150	0.998	27.50	562.9
160	0.955	27.12	515.5
170	0.936	26.95	495.2
180	0.923	26.83	481.5
190	0.923	26.83	481.5

TABLE 1.0 (cont'd)

<u>Azimuth</u> <u>(Degrees)</u>	<u>Relative</u> <u>Field</u>	<u>(dBk)</u>	<u>ERP</u> <u>(kW)</u>
200	0.924	26.84	482.6
210	0.925	26.84	483.6
220	0.925	26.84	483.6
230	0.929	26.88	487.8
240	0.931	26.90	489.9
250	0.940	26.98	499.4
260	0.942	27.00	501.5
270	0.962	27.19	523.1
280	0.981	27.36	543.9
290	0.993	27.46	557.3
300	0.998	27.50	562.9
310	1.000	27.52	565.2
320	0.999	27.51	564.1
330	0.997	27.50	561.8
340	0.995	27.48	559.6
350	0.991	27.44	555.1

Maximum ERP= 565.2 kilowatts= 27.52 dBk

Antenna height: 1393 m MSL/610 m AAT

Site coordinates: NL - 35° 56' 43"
WL - 115° 02' 32"

TABLE 1.1

REDUCTION IN PREDICTED
INTERFERENCE TO OTHER
STATIONS FROM DELETION
OF DTV CHANNEL 17 IN LAS VEGAS

Journal Broadcast Group, Inc.
Las Vegas, NV

		<u>Interference Free Service Within Grade B or Noise Limited Contour</u>					
		<u>Area (square kilometers)</u>			<u>Population(1990 Census)</u>		
		With KTNV Channel 17	Without KTNV Channel 17	Service Gain Resulting From Channel 17	With KTNV Channel 17	Without KTNV Channel 17	Service Gain Resulting From Channel 17
<u>Station</u>	<u>Channel</u>	<u>DTV</u>	<u>DTV</u>	<u>Deletion</u>	<u>DTV</u>	<u>DTV</u>	<u>Deletion</u>
KINC	15	8,150	8,300	150	758,000	764,000	6,000
KINC	16(DTV)	9,370	9,640	270	759,000	765,000	6,000
KUPN	21	8,270	8,450	180	764,000	764,000	0
Total Gain				600			12,000

TABLE 2.0

KTNV PROPOSED
CHANNEL 12 DTV FACILITIES
 Journal Broadcast Group, Inc.
 Las Vegas, NV

<u>Azimuth</u> <u>(Degrees)</u>	<u>Relative</u> <u>Field</u>	<u>(dBk)</u>	<u>ERP</u> <u>(kW)</u>
0	0.966	13.73	23.6
10	0.956	13.64	23.1
20	0.937	13.47	22.2
30	0.941	13.50	22.4
40	0.944	13.53	22.5
50	0.934	13.44	22.1
60	0.924	13.34	21.6
70	0.908	13.19	20.9
80	0.919	13.30	21.4
90	0.940	13.49	22.4
100	0.974	13.80	24.0
110	0.992	13.96	24.9
117	1.000	14.03	25.3
120	0.992	13.96	24.9
130	0.980	13.86	24.3
140	0.987	13.92	24.6
150	0.965	13.72	23.6
160	0.951	13.59	22.9
170	0.918	13.29	21.3
180	0.802	12.11	16.3
190	0.734	11.35	13.6
200	0.705	11.00	12.6
210	0.760	11.65	14.6

TABLE 2.0 (cont'd)

<u>Azimuth</u> <u>(Degrees)</u>	<u>Relative</u> <u>Field</u>	<u>(dBk)</u>	<u>ERP</u> <u>(kW)</u>
220	0.788	11.96	15.7
230	0.806	12.16	16.4
240	0.821	12.32	17.1
250	0.854	12.66	18.5
260	0.906	13.17	20.8
270	0.913	13.24	21.1
280	0.918	13.29	21.3
290	0.930	13.40	21.9
300	0.933	13.43	22.0
310	0.934	13.44	22.1
320	0.938	13.48	22.3
330	0.942	13.51	22.5
340	0.952	13.60	22.9
350	0.954	13.62	23.0

Maximum ERP= 25.3 kilowatts= 14.03 dBk

Antenna height: 1393 m MSL/610 m AAT

Site coordinates: NL - 35° 56' 43"
WL - 115° 02' 32"

TABLE 2.1

COMPARISON OF PREDICTED
SERVICE BY DTV OPERATION ON
CHANNEL 12 AND CHANNEL 17

Journal Broadcast Group, Inc.
Las Vegas, NV

<u>Interference Free Service Within Noise Limited Contour</u>					
<u>Area (square kilometers)</u>			<u>Population(1990 Census)</u>		
KTNV Channel 17 <u>DTV</u>	KTNV Channel 12 <u>DTV</u>	Service Gain Resulting From Channel 12 <u>Substitution</u>	KTNV Channel 17 <u>DTV</u>	KTNV Channel 12 <u>DTV</u>	Service Gain Resulting From Channel 12 <u>Substitution</u>
23,670	25,170	1,500	707,000	707,000	0

TABLE 2.3

TOTAL SERVICE GAINS
 RESULTING FROM SUBSTITUTION
 OF DTV CHANNEL 12 FOR DTV
CHANNEL 17 IN LAS VEGAS
 Journal Broadcast Group, Inc.
 Las Vegas, NV

	Area (Square kilometers)	Population (1990 Census)
KTNV DTV Service Gain	1,500	0
Gains by other stations from Channel 17 deletion	600	12,000
Losses by other stations from Channel 12 addition	(460)	(1,000)
Net gain (loss)	1,640	11,000

INCREASE IN PREDICTED
INTERFERENCE TO OTHER
STATIONS FROM ADDITION
OF DTV CHANNEL 12 IN LAS VEGAS

<u>Interference Free Service Within Grade B or Noise Limited Contour</u>	
<u>Area (square kilometers)</u>	<u>Population(1990 Census)</u>

Carl E. Smith Consulting Engineers